



MEDIATING INFLUENCE OF CASTE AND AUTONOMY ON MATERNAL HEALTH – A STUDY IN RURAL WEST BENGAL

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ABSTRACT

Maternal health refers to the health of women during pregnancy, childbirth, and the postpartum period which includes the health care dimensions of family planning, preconception, prenatal, and postnatal care. According to WHO 99% of all maternal deaths occur in developing countries and maternal mortality is higher in women living in rural areas and among poorer communities. What makes maternal health special is its direct link with maternal and child mortalities and morbidities.

Under such conditions this study focuses on the socio economic determinants of maternal health of a cross sectional population of women from rural West Bengal. The study reveals that social factors like caste and autonomy have significant impact on maternal health. Further regression analysis reveal the primary role of income and access to institutionalised health care as explanatory variable for maternal health. The ANNOVA carried out is significant at both 1% and 5% level.

KEY WORDS: Autonomy, maternal health, JEL Classification: I12, J16.

INTRODUCTION

Maternal health is a concept that encompasses the health care dimensions of family planning, pre-conception, pre-natal, delivery care and post-natal care of the mother and the child. According to WHO, 99% of all maternal deaths occur in developing countries and maternal mortality is higher in women living in rural areas and among poorer communities. Maternal health is an area of serious concern for policy makers as it is intricately related to morbidities and mortalities of not only the women but also is crucial in determining the health of the child. The concept of maternal health is a multidimensional concept which encompasses not only the availability of health care facilities but also reflects upon the utilisation of these amenities. This again is dependent upon the awareness of the women, her autonomy in decision making regarding her own health as well as the child's health, her socio economic status, affordability of health care services and such other factors. The maternal morbidities and mortalities which are a direct consequence of maternal health serve as good indicators of development of a region. According to NFHS 4, the percentage of mothers having institutionalised antenatal check-up grew from 38.6% in 2005-06 to 54.9% (53.3% in rural areas) in 2015-16. Also, the institutionalised delivery increased from 42% to 75.2% (71.9% for rural areas). The IMR also declined from 27 to 48 per thousand live births.

A number of interesting studies were made looking into the different aspects of maternal health status. (Vora et al., 2009) analyses the trends in maternal mortality nationally, the maternal healthcare-delivery system at different levels, and the implementation of national maternal health programmes, including recent innovative strategies. It identifies the causes for limited success in improving maternal health and suggests measures to rectify them. (Singh et al., 2014) focusses on the utilisation of maternal health care among adolescent mothers in rural India. (Saroja et al., 2008) looks into the role of caste in maternal health. (Arokiasamy et al., 2013) in their paper discussed the infrastructural facilities of maternal health care in India with respect to its access and demand determinants. (Singh et al., 2012) analysed the utilization of maternal and child health care among married adolescent women. (Kesterton et al., 2010) discussed the importance of accessibility and economic status as regards to institutional delivery in rural India. (Banerjee et al., 2009) looked into the teenage pregnancy aspect of maternal health. (Bonu et al., 2009) focussed on the incidence and correlates of maternal health care expenditure in India. (Mistry et al., 2009) looked into the role of women's autonomy in pregnancy care in rural India. (Navaneetham and Dharmalingam, 2002) discussed about the utilization of maternal health care services in southern India. (Bloom et al., 2001) looked into the various dimensions of women's autonomy and studied their influence on maternal health care utilization in a north Indian city.

In the context of the above, the present study looks in to the multifarious issues affecting maternal health in rural West Bengal. The cross-sectional sample of mothers considered in the study were intensively studied for differences in autonomy, economic status, education and access to institutionalised health care and their consequential impact on maternal health where, maternal health is sub-divided into antenatal health care, delivery care and post-natal care.

Objectives

- To look into the existing status of maternal health.
- To look into the various socio-economic-demographic factors influencing maternal health.

METHOD

Hypotheses

- There is no significant association between demographic factors and maternal health.
- There is no significant association between social factors and maternal health.
- There is no significant association between economic factors and maternal health.

Sample

The target population of this study was all the married rural women who have delivered at least a child during the study period (June-December 2014) belonging to the age group 20 to 40 years in West Bengal. The sample was drawn randomly by two stage sampling technique. 50 households from 6 villages were selected randomly from the district of 24 parganas (N) with mothers in the age group 20 to 40 years.

Tools

Quantitative data was collected from the respondents regarding the demographic/social/ economic variables, through the method of schedules and questionnaires. It is to be mentioned here that the required data were collected with the help of student volunteers. Since the present study was undertaken to analyse the significance of various parameters influencing maternal health, Haemoglobin count in mothers and general health questionnaire has been taken to construct an index for measuring maternal health. As regards to autonomy a simple questionnaire consisting of 10 questions on various aspects of decision making regarding own health and child health were asked. The questionnaire was validated through a pilot study.

Procedure

In this study, the method of two stage random sampling was used in collecting the data. The district 24 parganas (N) was selected according to convenience. Then the 6 villages were selected randomly out of which 50 households were considered which had women who have already given birth to a child were interviewed. Prior to the interview the consent was taken from each subject explaining the motive of the study. The exclusion principle was carried out to exclude the would-be mothers from the survey as data regarding all three categories of maternal health care was collected.

RESULT AND DISCUSSION

The demographic characteristics of the sample reveal that the mean age of the sample is 24.65 years with s.d + 3.76 years. The sample consisted of 72% Hindu women and 28% Muslim women. 46% women belonged to the backward classes and 54% women were from the upper caste.

In the study as stated earlier, maternal health (MH) was calculated as a composite index of haemoglobin count and morbidity rates of the mothers. It is considered as the dependent variable. The explanatory variable of the study were Household Per Capita Monthly Income (HHPCI) has been taken as the variable representing the economic factor. The variable is expected to influence positively maternal health. Hence, its coefficient is expected have a positive sign. Educational level of the mother or the number of years of formal education of the mother's (YE) has

been taken as the variable representing this factor. The factor is expected to influence positively maternal health. Hence, its coefficient is expected to have a positive sign. It is assumed that closer the residence of the mother to the health centre, better is the access to health facilities. The variable is used for capturing this factor is distance from health centre (DHC). The variable actually captures the lack of access rather than access to health facilities. So, the coefficient is expected to be negative. Maternal health may be affected by the caste (CAS) of the women. Higher caste women were assigned dummy '1' and lower caste women with dummy '0'. Also, religion of the women (WR) were given dummy '1' for Muslim and '0' for Hindu. Similarly for women with high autonomy (WA) '1' and low autonomy '0'.

Hence, the regression model is constructed keeping in view the above variables in consideration. The regression model takes the following form:

$$MH = b_0 + b_1 HHPI + b_2 YE + b_3 DHC + b_4 CAS + b_5 WA + e$$

Where 'e' is the random disturbance term which is assumed to satisfy classical least square assumptions.

Table -1 Model summary

Criteria	R	R square	Adjusted R square	Standard Error of the Estimate
Maternal Health	0.908(a)	0.967	.972	.70980

a. Predictors: (Constant), HHPI, YE, DHC, CAS, WA.

Table-2 ANOVA_a

Model	Sum of squares	Degrees of freedom	Mean square	F	Significance
Regression	407.08	4	107.83	211.83	0.000(a)
Residual	10.07	20	.52	-	
Total	417.15	24	-	-	

a. Predictors: (Constant, HHPI, YE, DHC, CAS, WA.)

b. Dependent Variable: MH

The results presented in the Table 1 & 2 tell us that the model has a very high R^2 value and it has a high Adjusted R^2 too which shows that the model is good fit. The R^2 value of 0.967 implies that 96.7% of the variation in Maternal Health is explained by the independent variables jointly.

Table 3 Coefficients (a)

Variables	Unstandardized Coefficients	Standardized Coefficients			
		SE	Beta	t	Significance
Constant(b_0)	0.657	4.03	0.176	3.72	0.000
HHPI	0.451	0.03	0.558	0.284	0.058
YE	0.003	0.005	0.763	0.182	0.032
DHC	-1.56	0.421	0.098	0.984	0.003
CAS	0.306	-	0.112	0.23	0.002
WR	0.007	-	0.001	0.312	.004
WA	0.601	-	0.002	0.101	0.021

i=0, 1,2,3,4

From Table 3, it is clear that among the explanatory variables, economic variable (HHPI), demographic variable (DHC) and social variable (WA and CAS) are most significant. Variables like YE and WR come out as insignificant. Table 2 shows that regarding the F value it is significant at both 1% and 5% level. Thus, the Null hypothesis are rejected and the alternative hypothesis accepted are there is significant influence of demographic variables, economic variables as well as social variable on the maternal health of women of rural West Bengal.

Conclusion:

The study reveals that the maternal health is a multidimensional concept and apart from the economic or social variables the demographic variables like distance from the health centre also has an impact on the maternal health. As is seen from the study the distance from the health centre is negatively related to the maternal health in other words the more the distance from the health centre lesser women have access to institutionalised health care. This is an important finding as it has bearing consequences on not only maternal health but also the health and immunisation of the child.

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